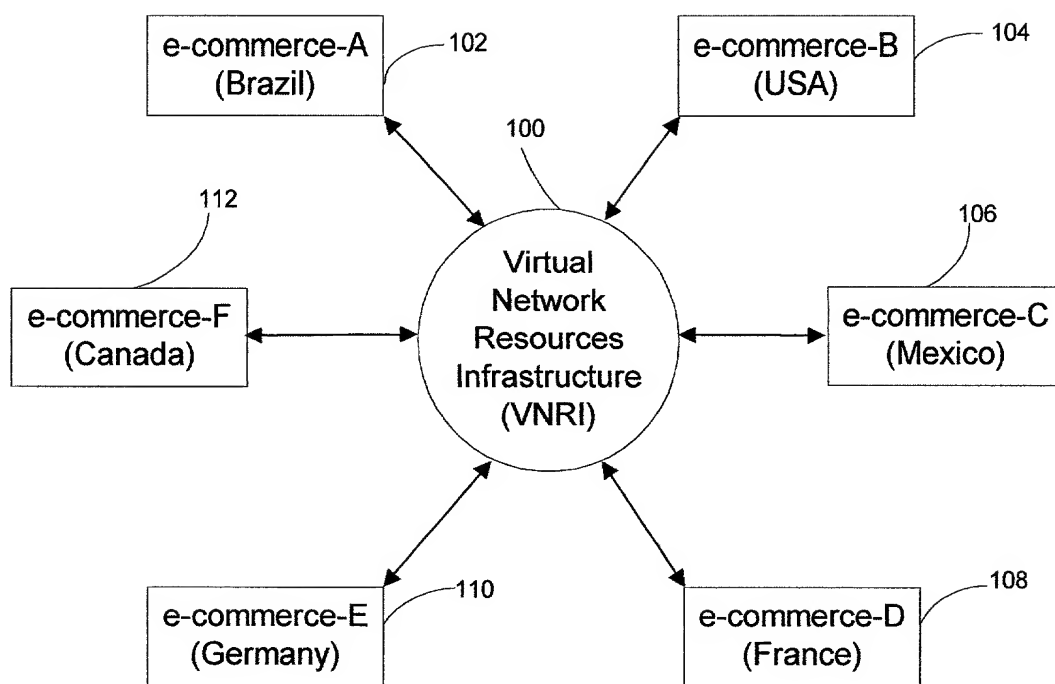
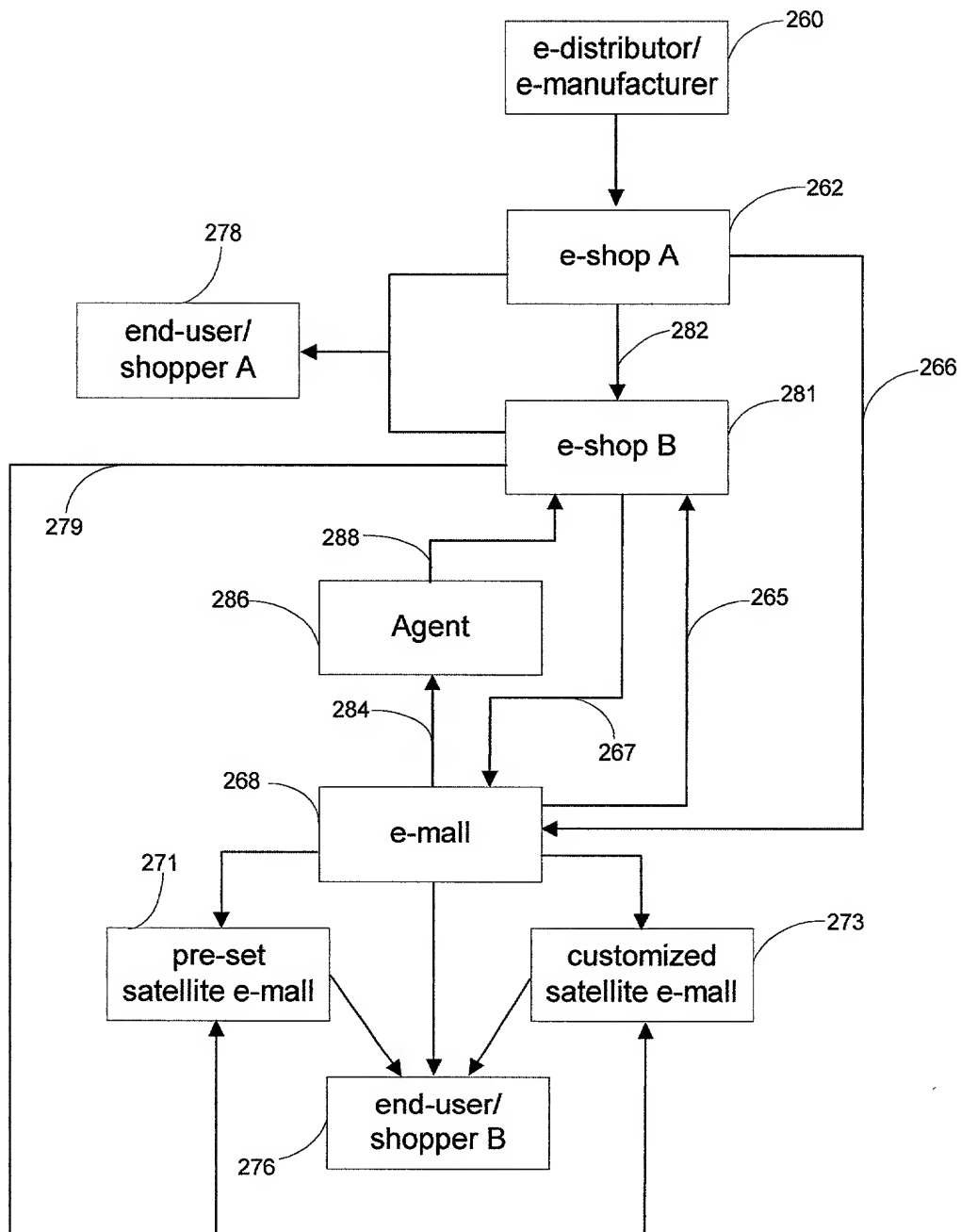


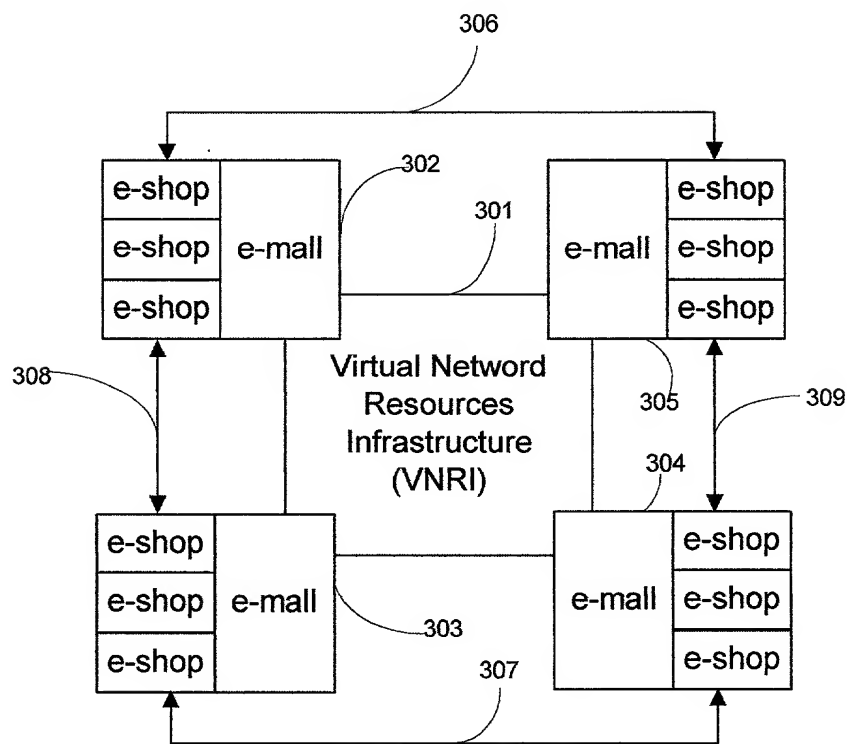
*Fig. 1*



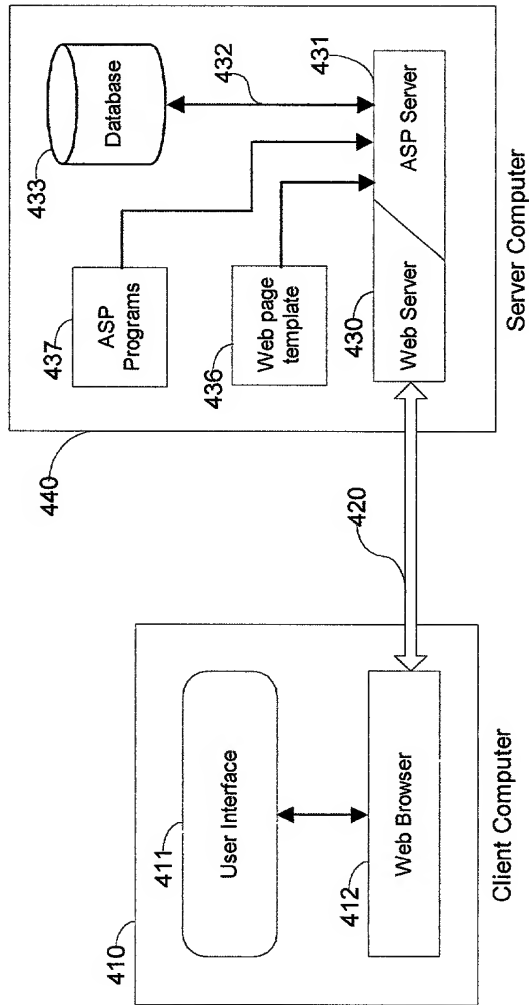
*Fig. 2*



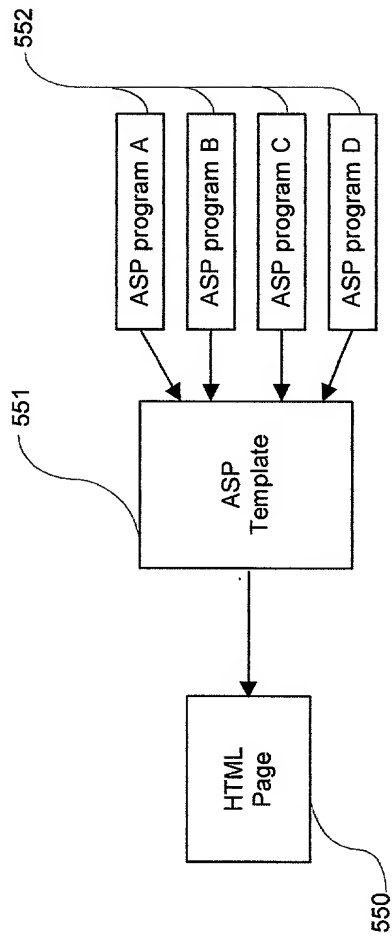
*Fig. 3*



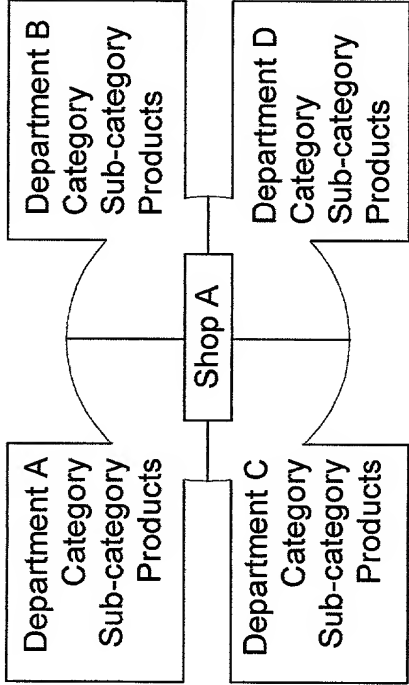
*Fig. 4*



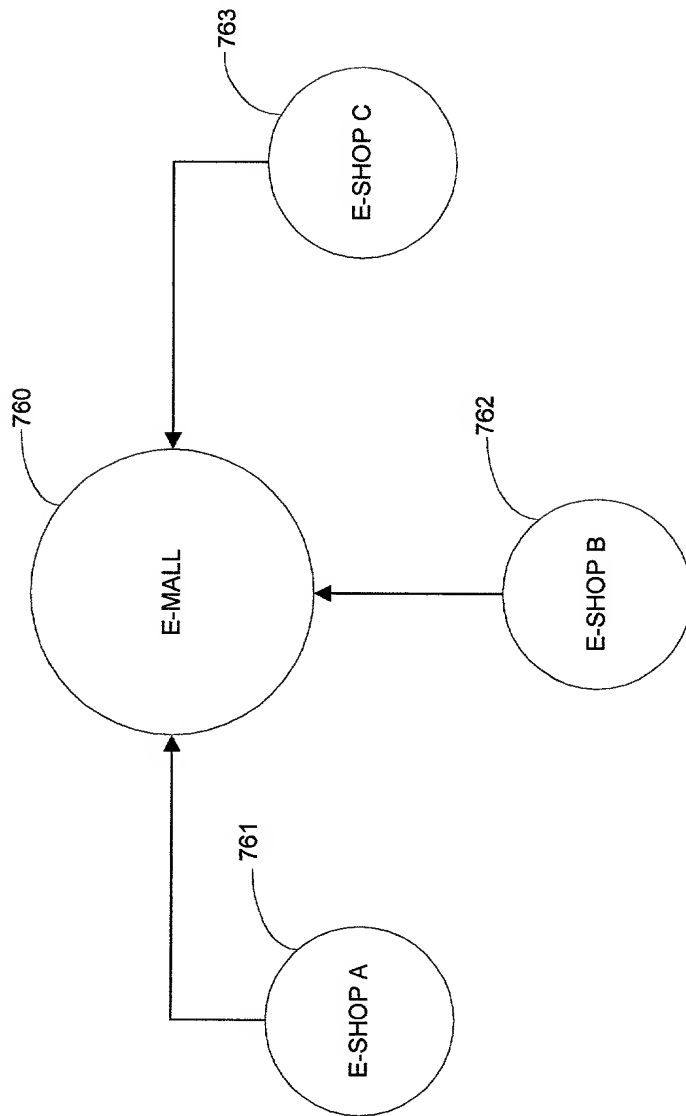
*Fig. 5*



**Fig. 6**



**Fig. 7**



*Fig. 8*

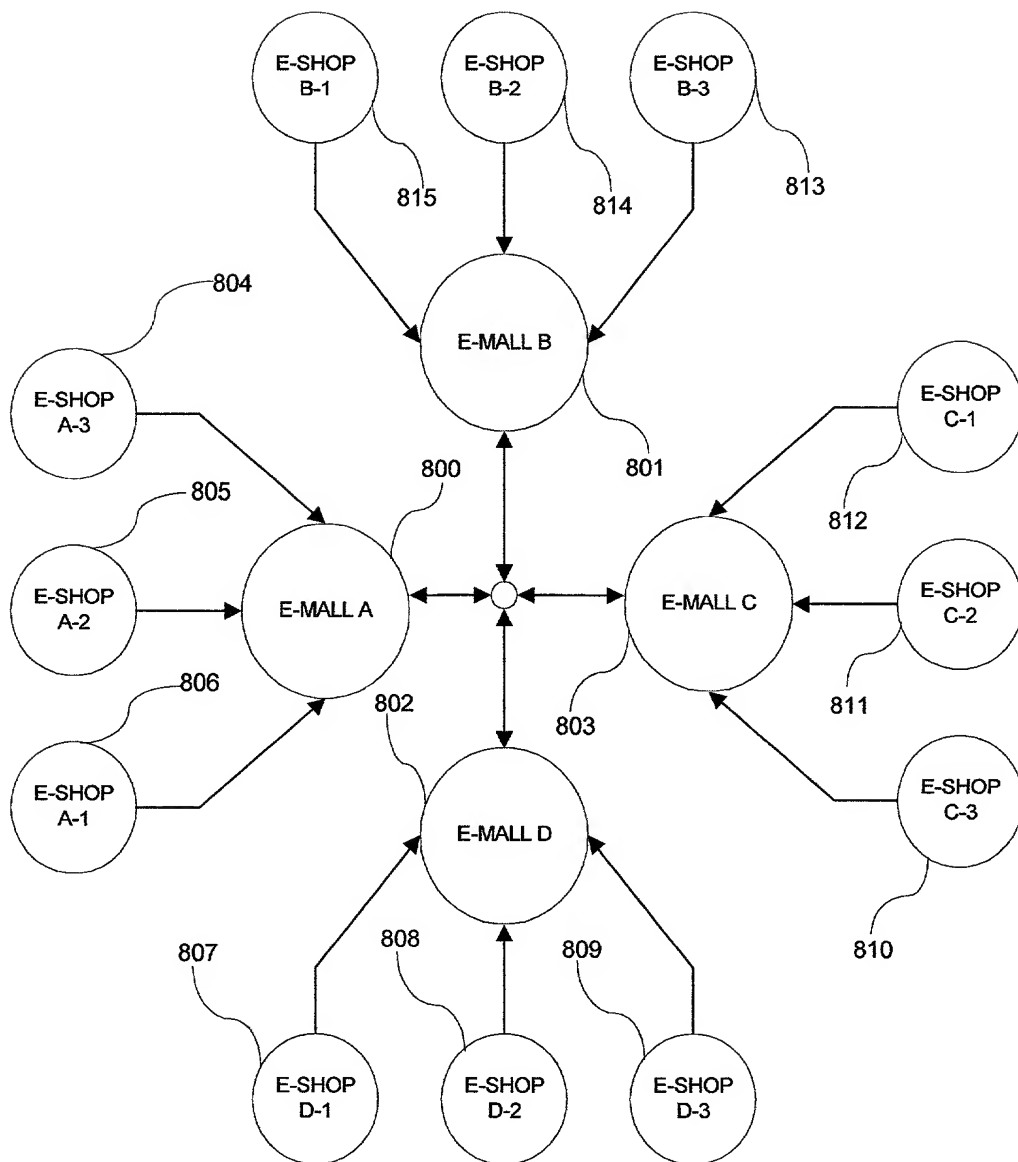
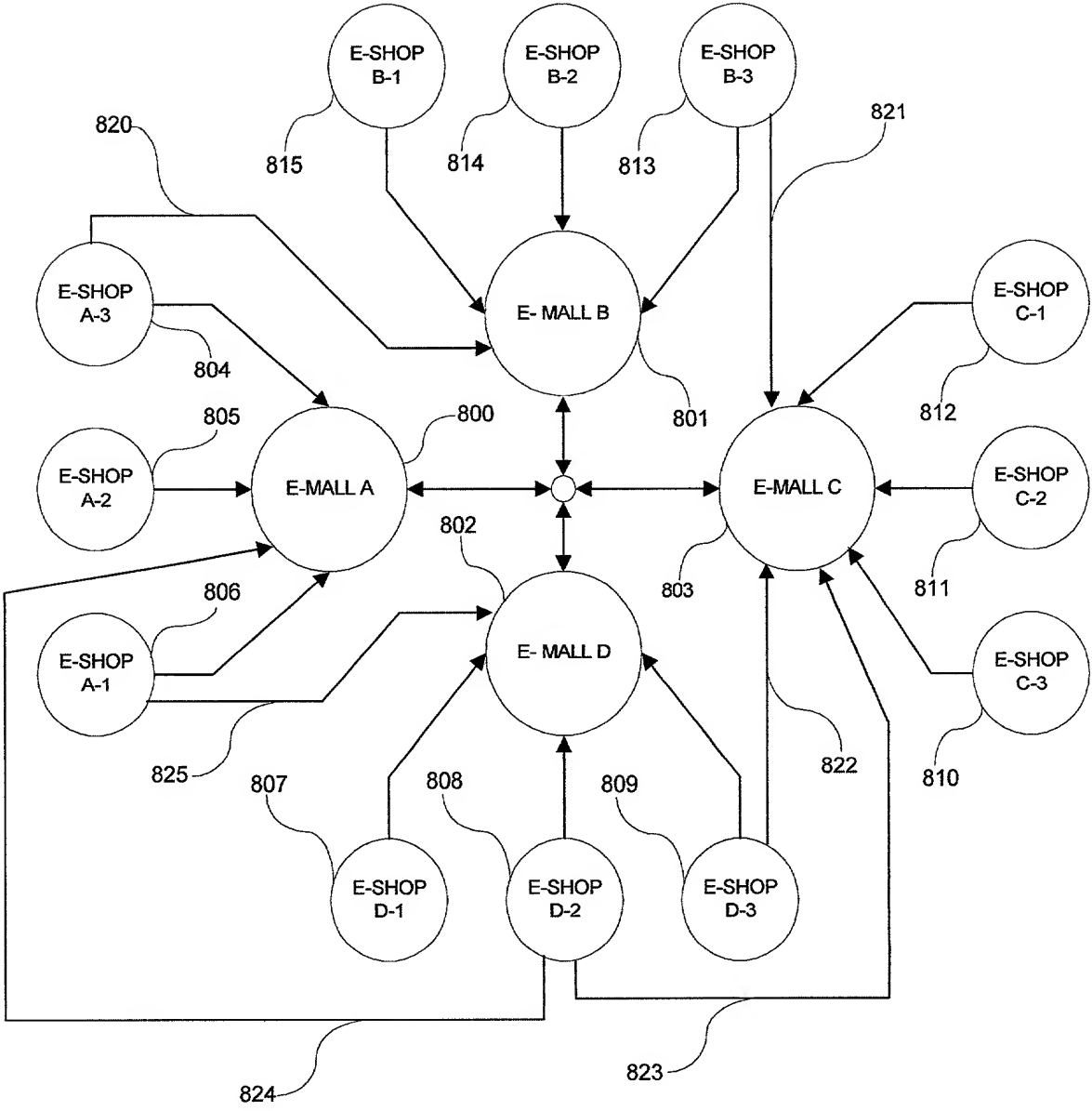
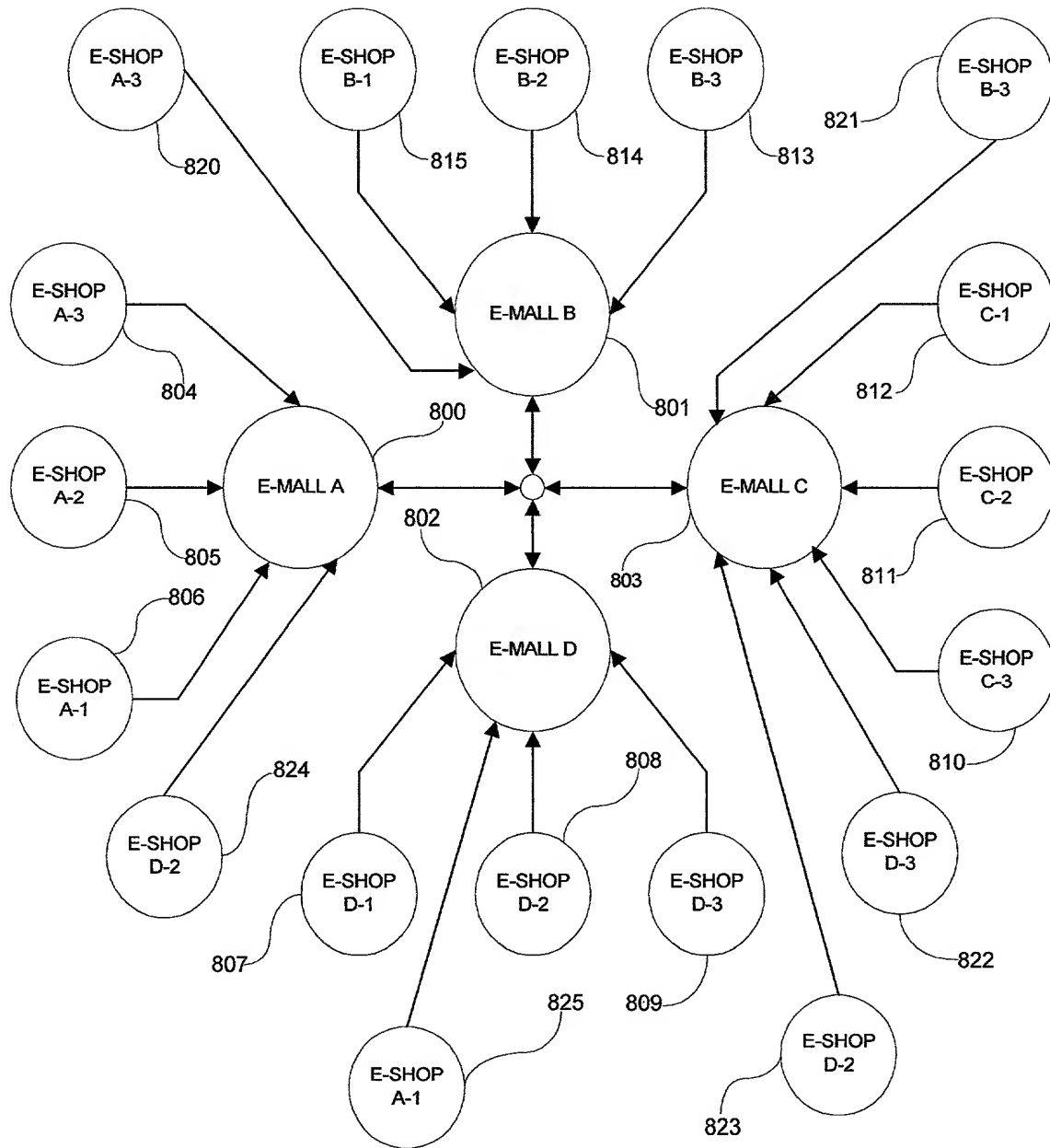




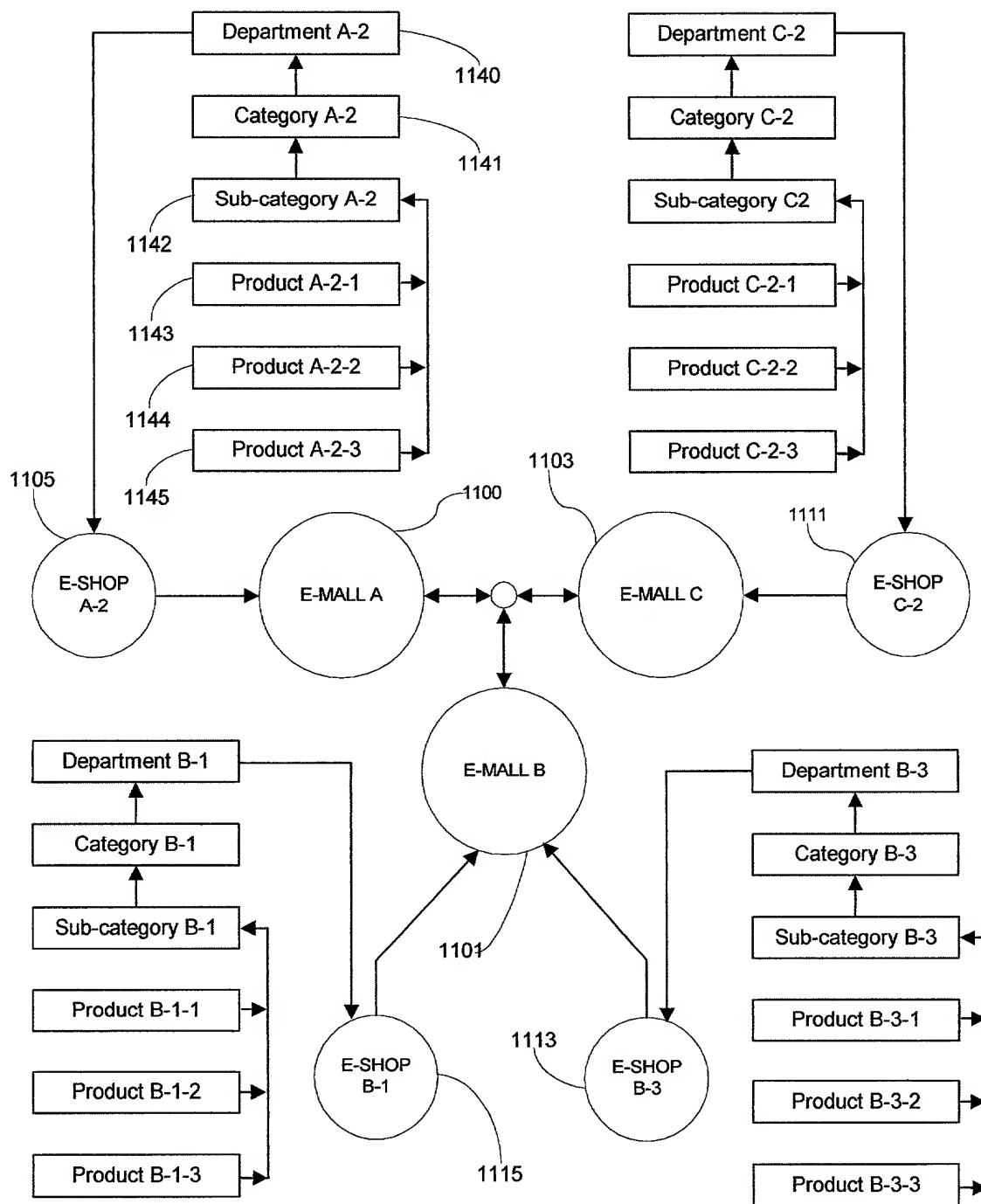
Fig. 9



*Fig. 10*



*Fig. 11*



*Fig. 12*

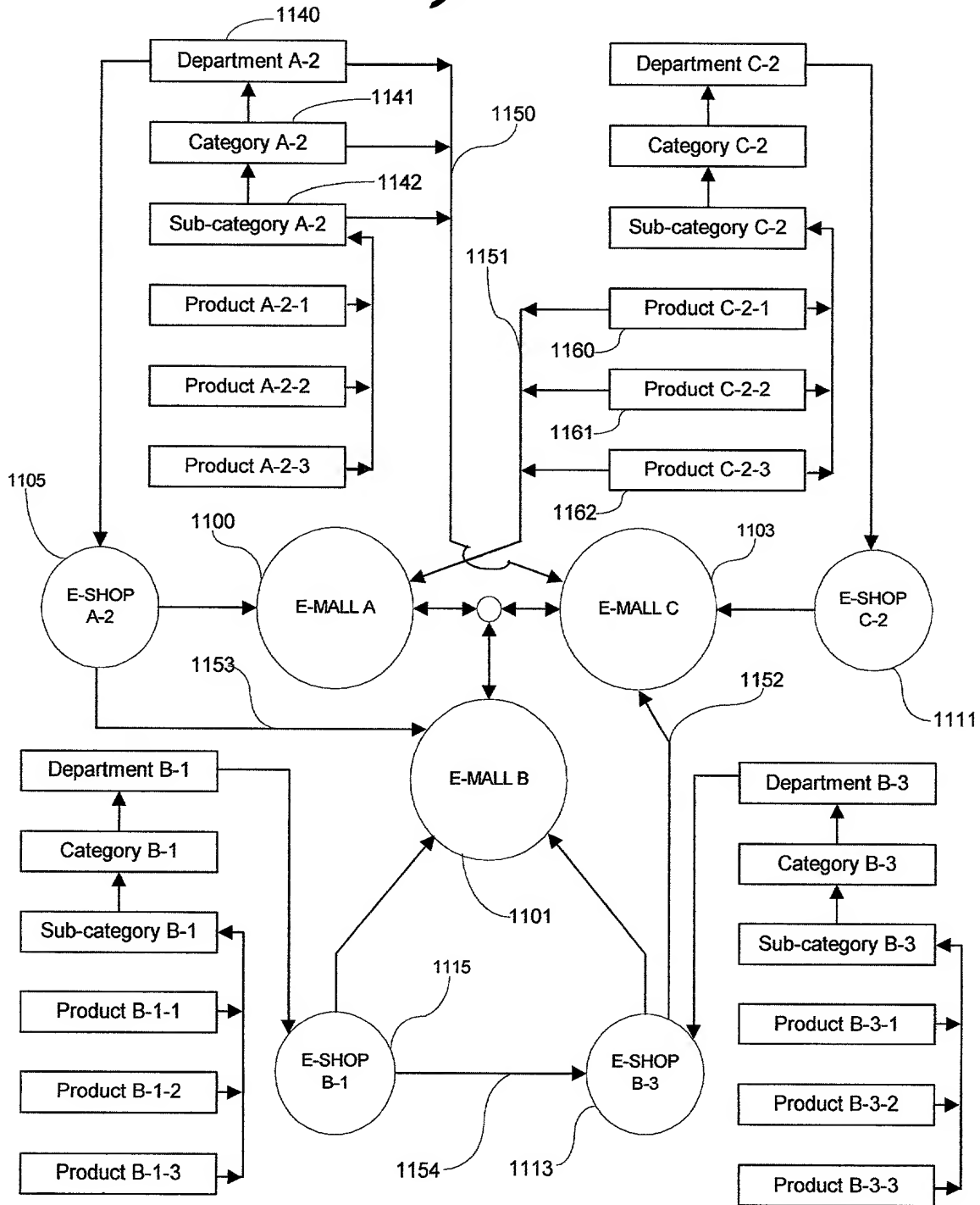


Fig. 13

Dynamic Table

ID	Shop_Name	Mall_Name	Department	Category	Subcategory	Product_ID
1	E-Shop A-2	E-Mall A	Department A-2	Category A-2	Sub-category A-2	Product A-2-1
2	E-Shop A-2	E-Mall A	Department A-2	Category A-2	Sub-category A-2	Product A-2-2
3	E-Shop A-2	E-Mall A	Department A-2	Category A-2	Sub-category A-2	Product A-2-3
4	E-Shop B-1	E-Mall B	Department B-1	Category B-1	Sub-category B-1	Product B-1-1
5	E-Shop B-1	E-Mall B	Department B-1	Category B-1	Sub-category B-1	Product B-1-2
6	E-Shop B-1	E-Mall B	Department B-1	Category B-1	Sub-category B-1	Product B-1-3
7	E-Shop B-3	E-Mall B	Department B-3	Category B-3	Sub-category B-3	Product B-3-1
8	E-Shop B-3	E-Mall B	Department B-3	Category B-3	Sub-category B-3	Product B-3-2
9	E-Shop B-3	E-Mall B	Department B-3	Category B-3	Sub-category B-3	Product B-3-3
10	E-Shop C-2	E-Mall C	Department C-2	Category C-2	Sub-category C-2	Product C-2-1
11	E-Shop C-2	E-Mall C	Department C-2	Category C-2	Sub-category C-2	Product C-2-2
12	E-Shop C-2	E-Mall C	Department C-2	Category C-2	Sub-category C-2	Product C-2-3

Fig. 14

VirtualTable

ID	Virtual_Mail	Type	Virtual_Type_Name
1	E-Mall A	Product	Product C-2-1
2	E-Mall A	Product	Product C-2-2
3	E-Mall A	Product	Product C-2-3
4	E-Mall B	Shop	E-Shop A-2
5	E-Shop B-3	Shop	E-Shop B-1
6	E-Mall C	Shop	E-Shop B-3
7	E-Mall C	Department	Department A-2
8	E-Mall C	Category	Category A-2
9	E-Mall C	Sub-category	Sub-category A-2

*Fig. 15*

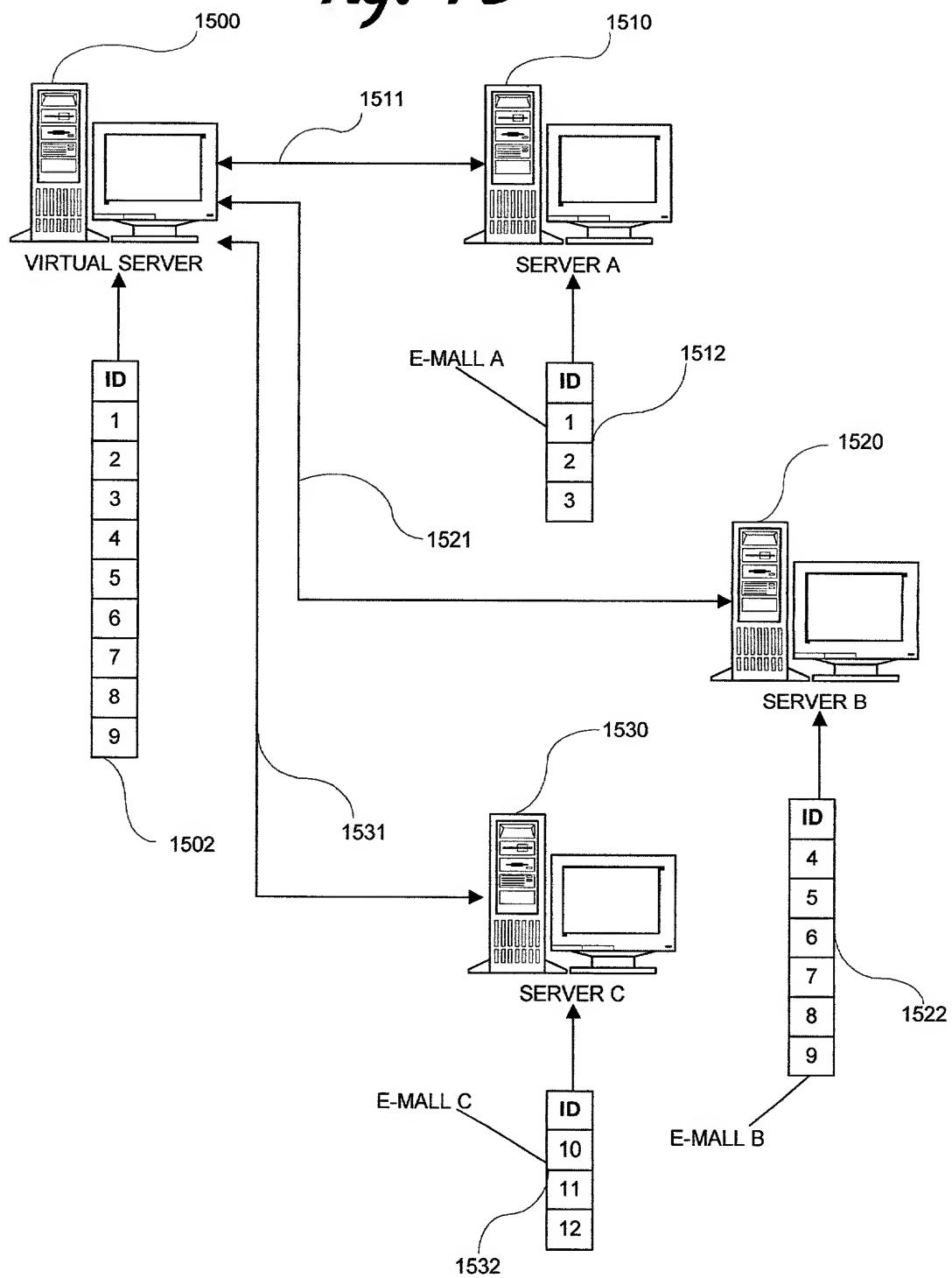


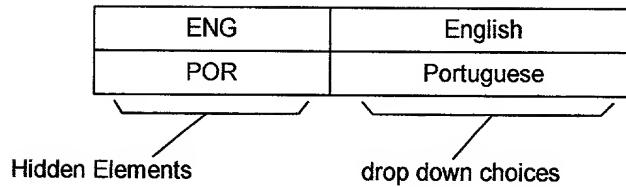
Fig. 16

languageTable

ID	Phrase_Code	ENG	POR
1	NAME	Name	Nome
2	ADDR	Address	Endereço
3	CITY	City	Cidade
4	STAT	State	Estado
5	ZIP	Zip Code	Código Postal
6	CNTY	Country	País
7	ENGL	English	Inglês
8	PORT	Portuguese	Português



*Fig. 17*



*Fig. 18*

```
1) <!-- only form tags are used, all other HTML tags omitted for simplicity -->
2) <form name=changelanguage action=newlanguage.asp>
3)     <select name=language onChange='changeLanguage()'>
4)         <option value=ENG>English</option>
5)         <option value=POR>Portuguese</option>
6)     </select>
7) </form>
8)
9) <script language=javascript>
10)     function changeLanguage()
11)     {
12)         document.changelanguage.submit();
14)     }
15) </script>
```

## Fig. 19

```
1) <% var sLanguage=Request.Form("language");
2)
3) function doTranslate(sPhraseCode,sChosenLanguage)
4) {
5) //
6) // code to open Data Base Connection and Record Set Connection
7) //
8) var Connect = Server.CreateObject("ADODB.Connection");
9) // name of Data Base where translation table is located
10) // assumed "worldTranslation" for sake of simplicity
11) Connect.Open( "worldTranslation" );
12)
13) var languageRS = Server.CreateObject("ADODB.Recordset");
14) // name of table is assumed to be "languageTable"
15) // for sake of sympathy
16) var Query = "SELECT " + sChosenLanguage + " FROM languageTable WHERE "
17)           + " Phrase_Code=" + sPhraseCode + """;
18)
19) languageRS .Open( Query, Connect , 3, 3 );
20) return( languageRS (sChosenLanguage) );
21) }
22)
23) //
24) // code to close connection go here
25) // omitted for sympathy
26) // %>
27) <!-- not all HTML tags will be used, omitted for sympathy -->
28) <html>
29) <form name=changelanguage action=newlanguage.asp>
30)   <select name=language onChange='changeLanguage()'>
31)     <option value=ENGL>
32)       <% Response.Write(doTranslate("ENGL", sLanguage)) %>
33)     </option>
34)     <option value=PORT>
35)       <% Response.Write(doTranslate("PORT", sLanguage)) %>
36)     </option>
37)   </select>
38) </form>
39) </html>
40) <script language=javascript>
41)   function changeLanguage()
42)   {
43)     document.changelanguage.submit();
44)   }
45) </script>
```

Fig. 20

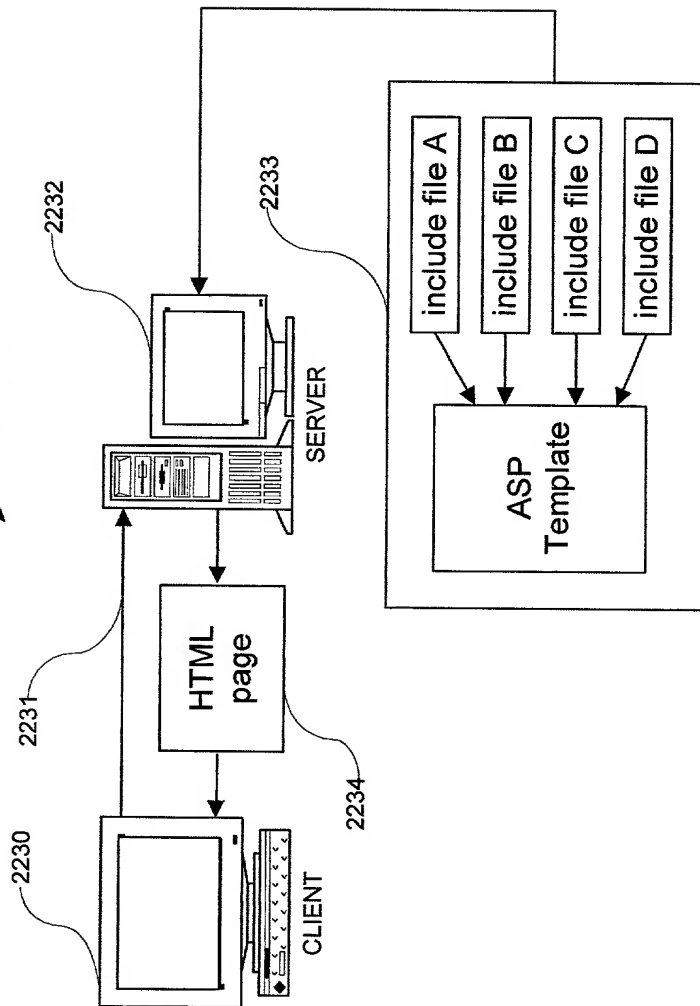
ID	Product_ID	Language	Product_Title
1	Product A-2-1	POR	Título do Produto A-2-1
2	Product A-2-2	ENG	Product A-2-2 Title

*Fig. 21*

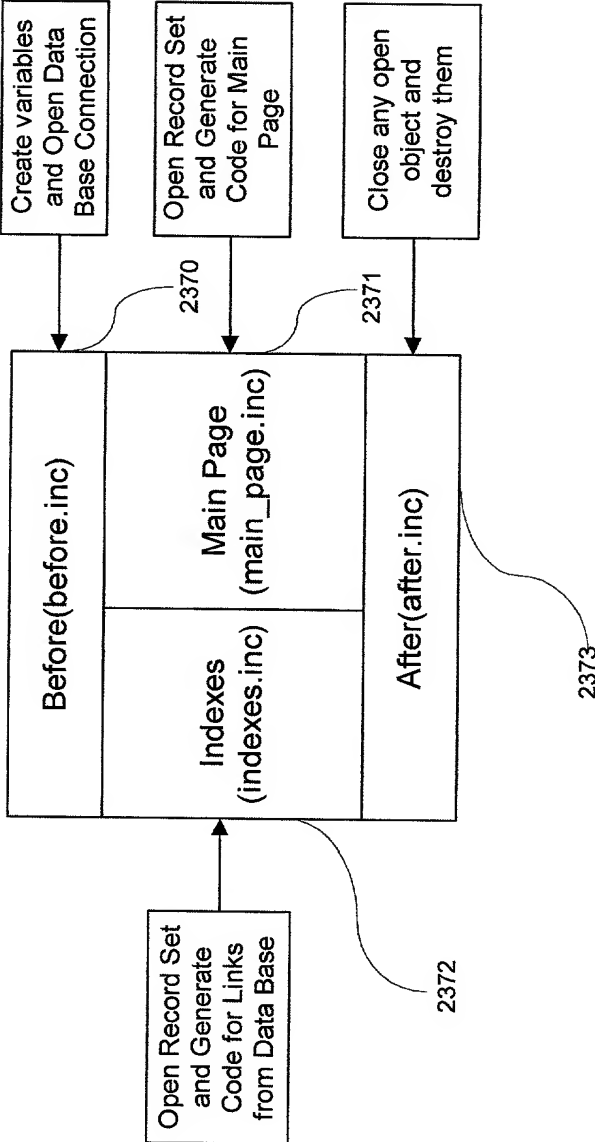
DynamicTable2

ID	Language	Shop_Name	Mall_Name	Department	Category	Subcategory	Product_Title
1	POR	E-Shop A-2	E-Mall A	Department A-2	Category A-2	Subcategory A-2	Título do Produto A-2-1
2	ENG	E-Shop A-2	E-Mall A	Department A-2	Category A-2	Subcategory A-2	Product Title A-2-2
3	ENG	E-Shop A-2	E-Mall A	Department A-2	Category A-2	Subcategory A-2	Product Title A-2-3
4	POR	E-Shop B-1	E-Mall B	Department B-1	Category B-1	Subcategory B-1	Título do Produto B-1-1
5	ENG	E-Shop B-1	E-Mall B	Department B-1	Category B-1	Subcategory B-1	Product Title B-1-2
6	ENG	E-Shop B-1	E-Mall B	Department B-1	Category B-1	Subcategory B-1	Product Title B-1-3
7	POR	E-Shop B-3	E-Mall B	Department B-3	Category B-3	Subcategory B-3	Título do Produto B-3-1
8	ENG	E-Shop B-3	E-Mall B	Department B-3	Category B-3	Subcategory B-3	Product Title B-3-2
9	ENG	E-Shop B-3	E-Mall B	Department B-3	Category B-3	Subcategory B-3	Product Title B-3-3
10	POR	E-Shop C-2	E-Mall C	Department C-2	Category C-2	Subcategory C-2	Título do Produto C-2-1
11	ENG	E-Shop C-2	E-Mall C	Department C-2	Category C-2	Subcategory C-2	Product Title C-2-2
12	ENG	E-Shop C-2	E-Mall C	Department C-2	Category C-2	Subcategory C-2	Product Title C-2-3

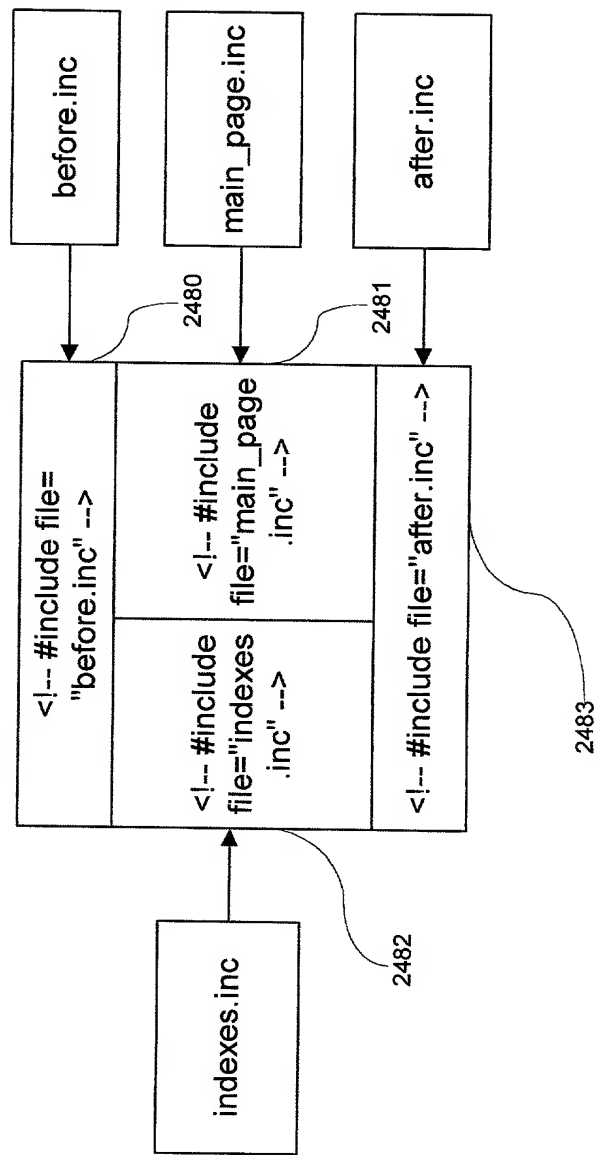
Fig. 22



*Fig. 23*



**Fig. 24**



*Fig. 25*

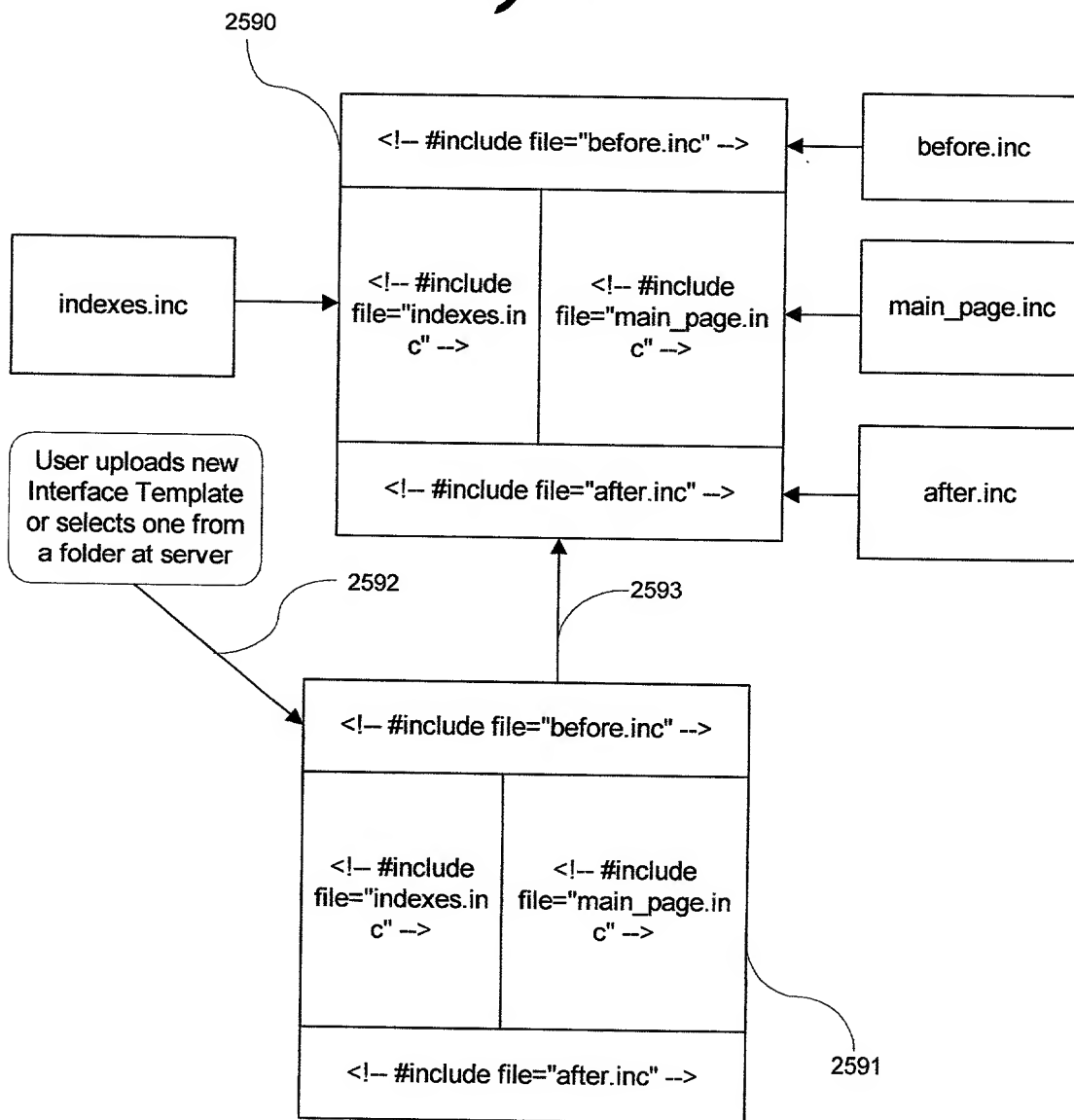




Fig. 26

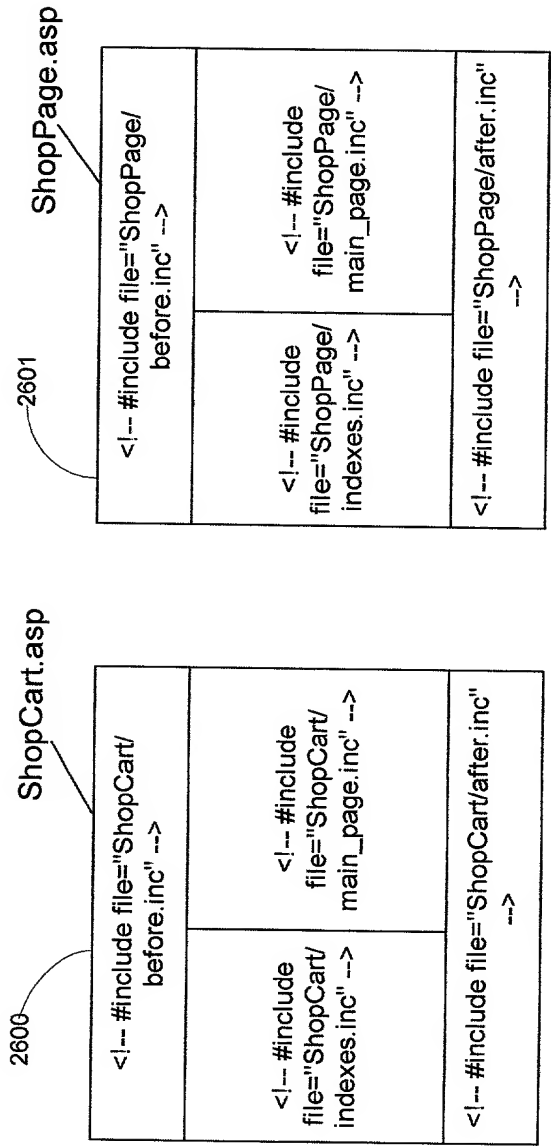
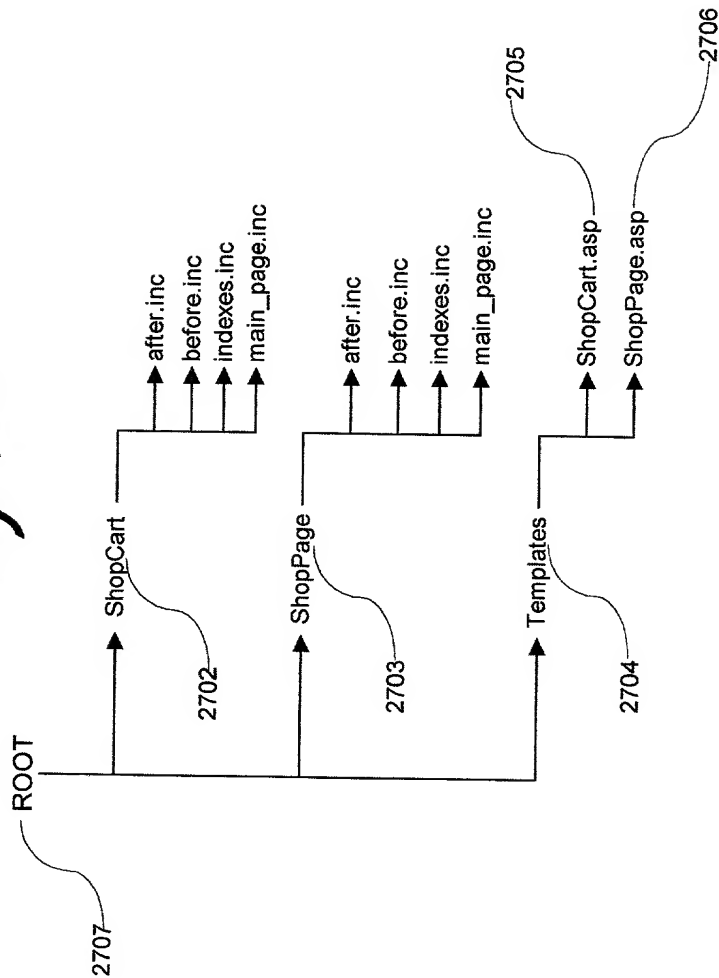
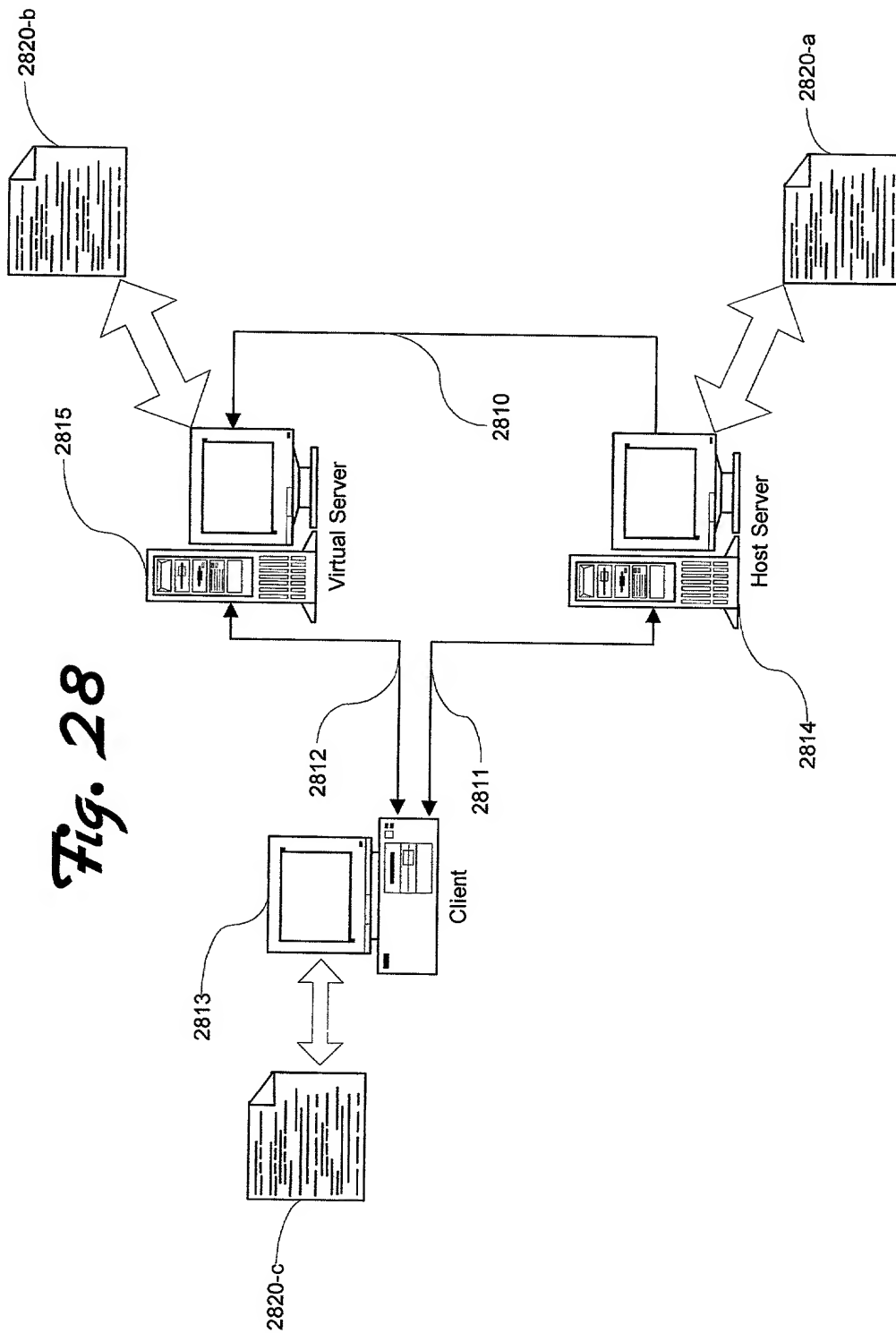
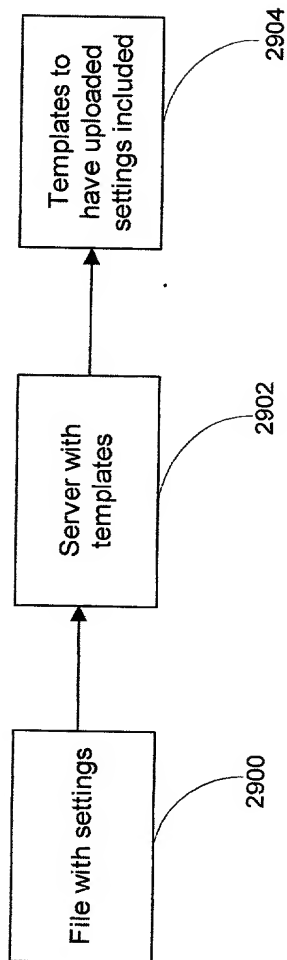


Fig. 27





*Fig. 29*



*Fig. 29a*

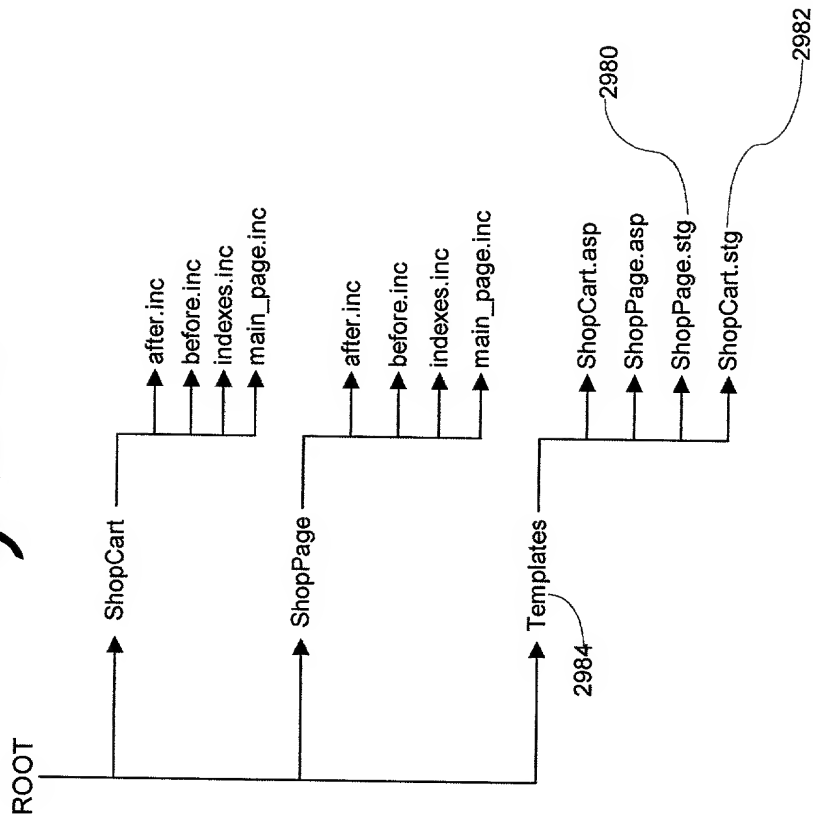
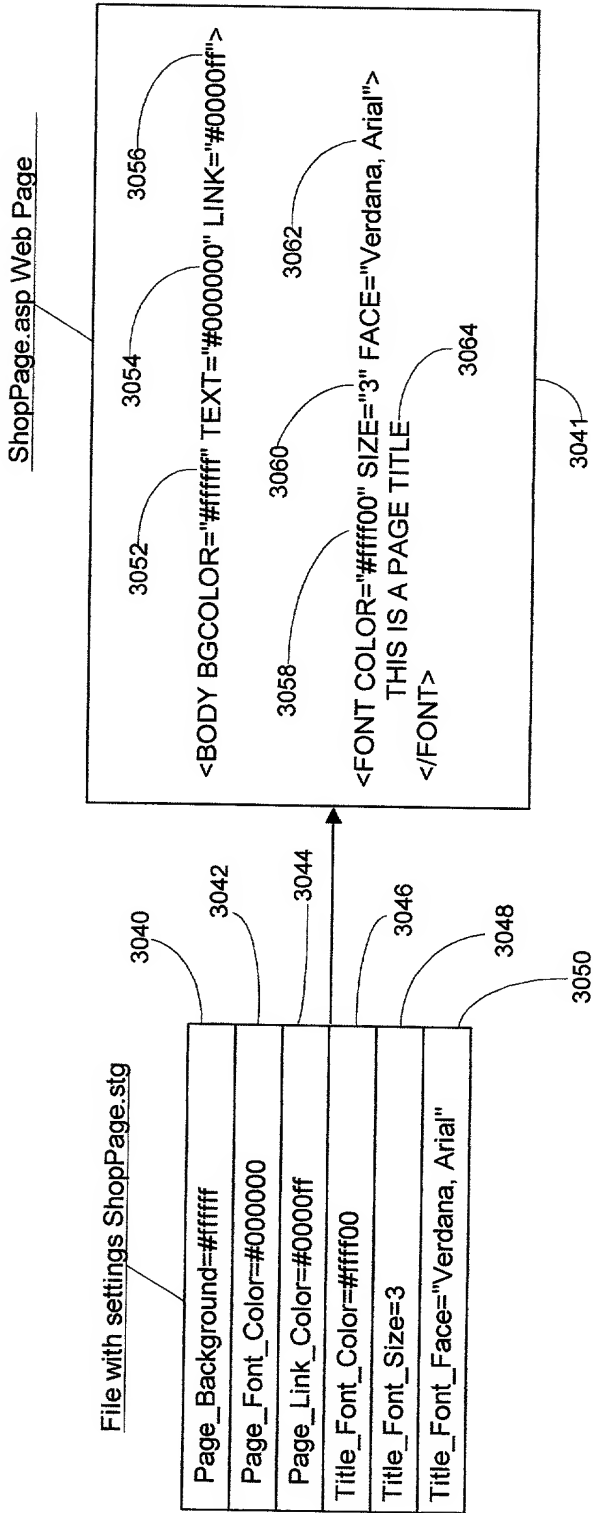
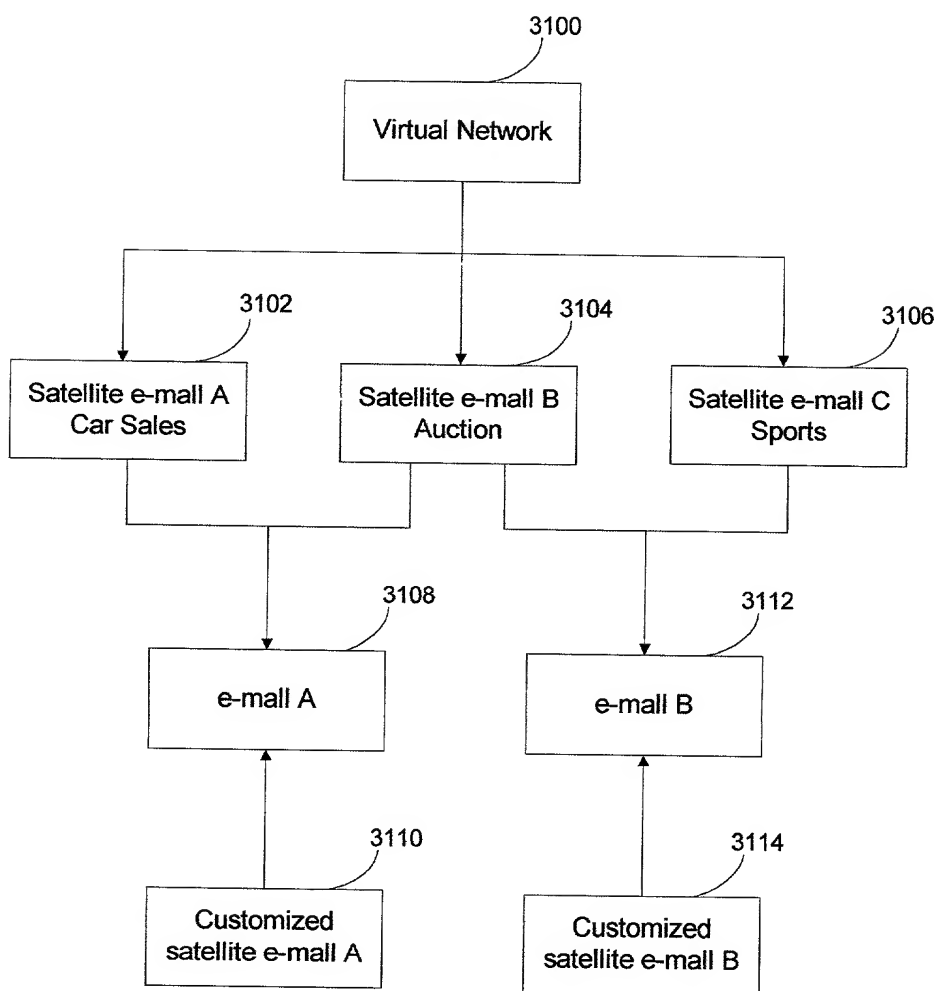


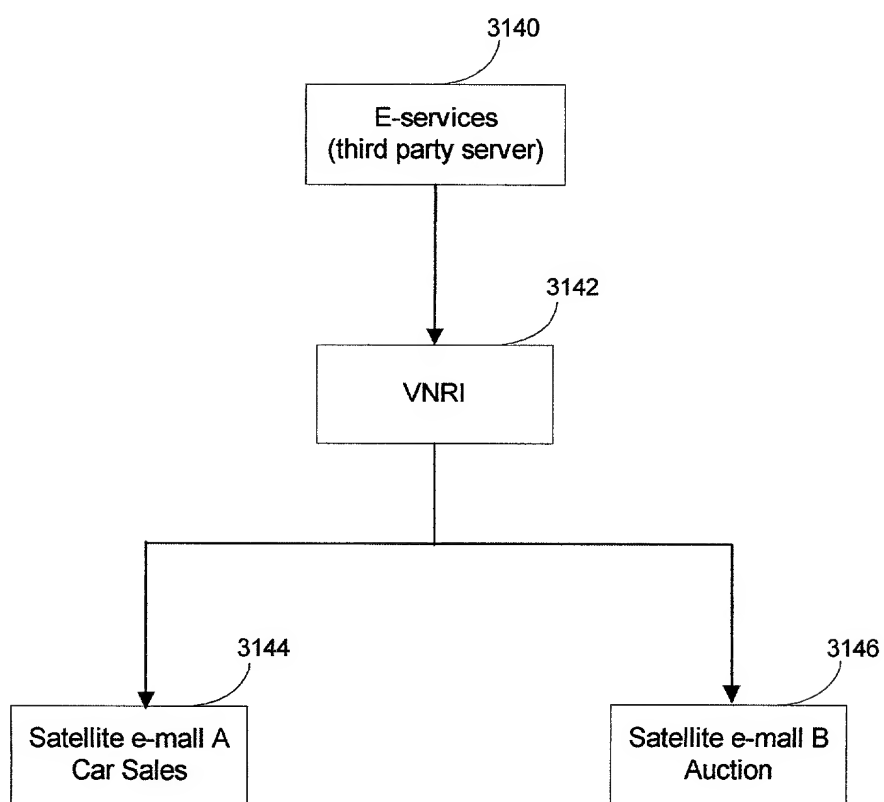
Fig. 30



*Fig. 31*

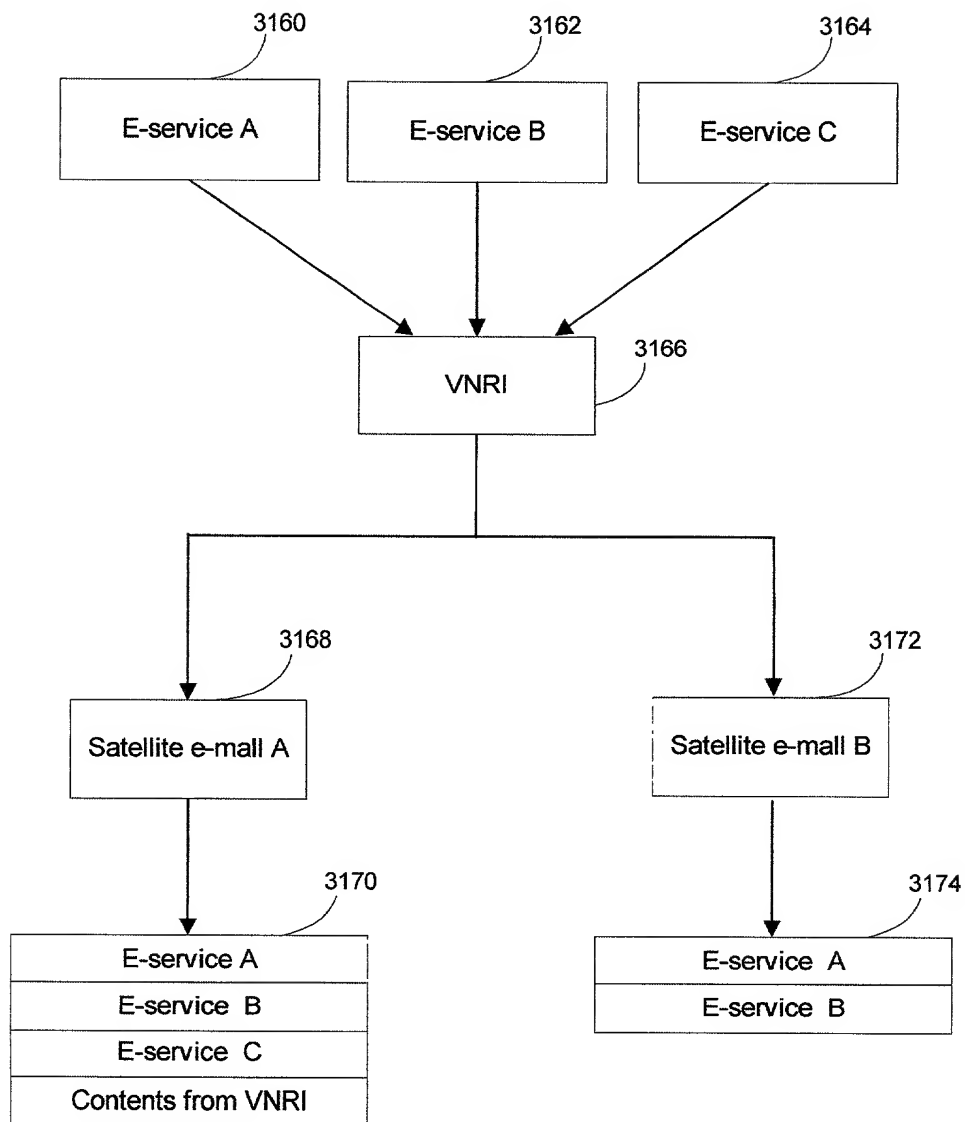


*Fig. 3/a*

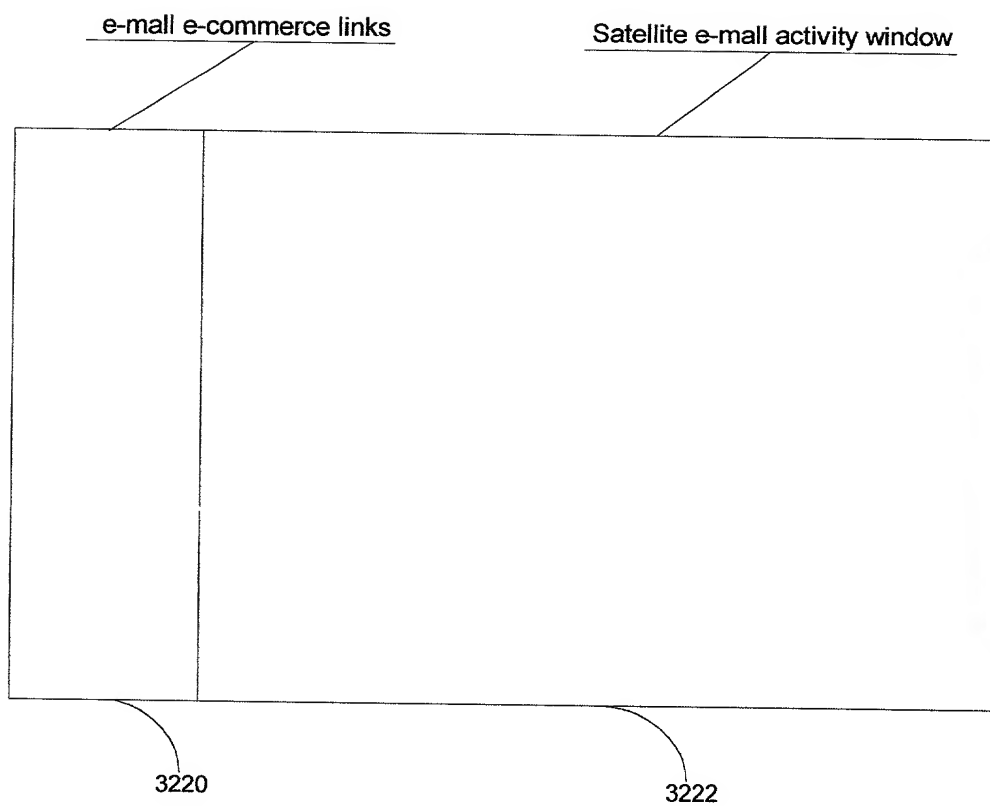




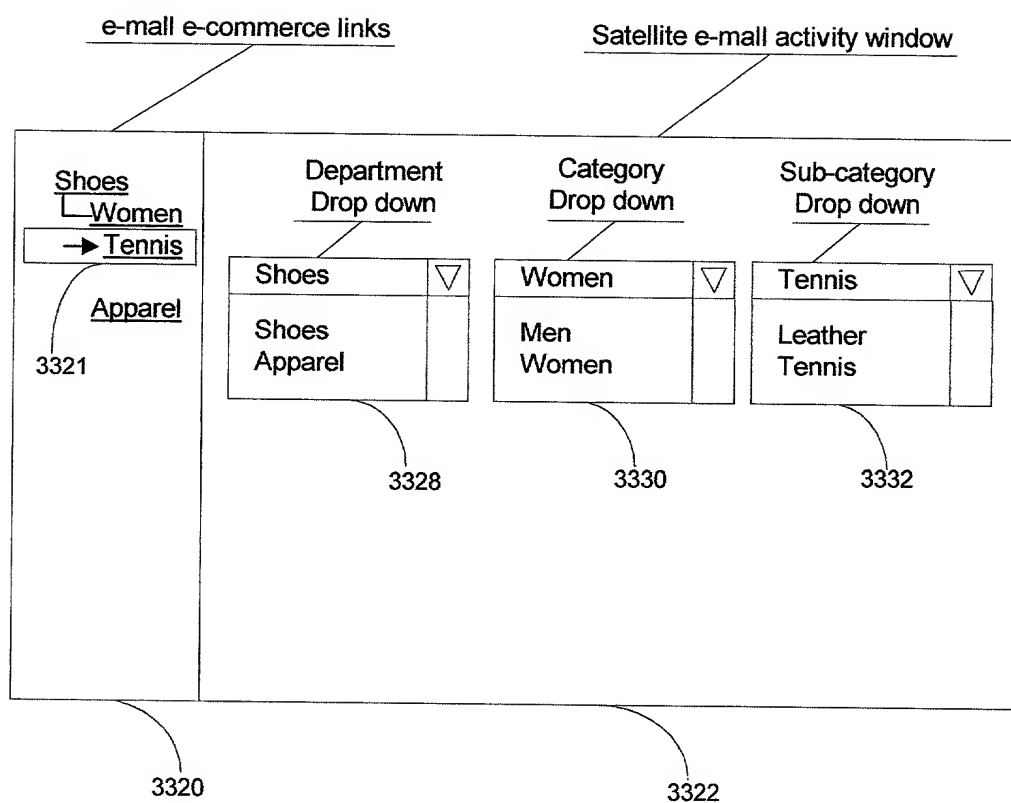
*Fig. 316*



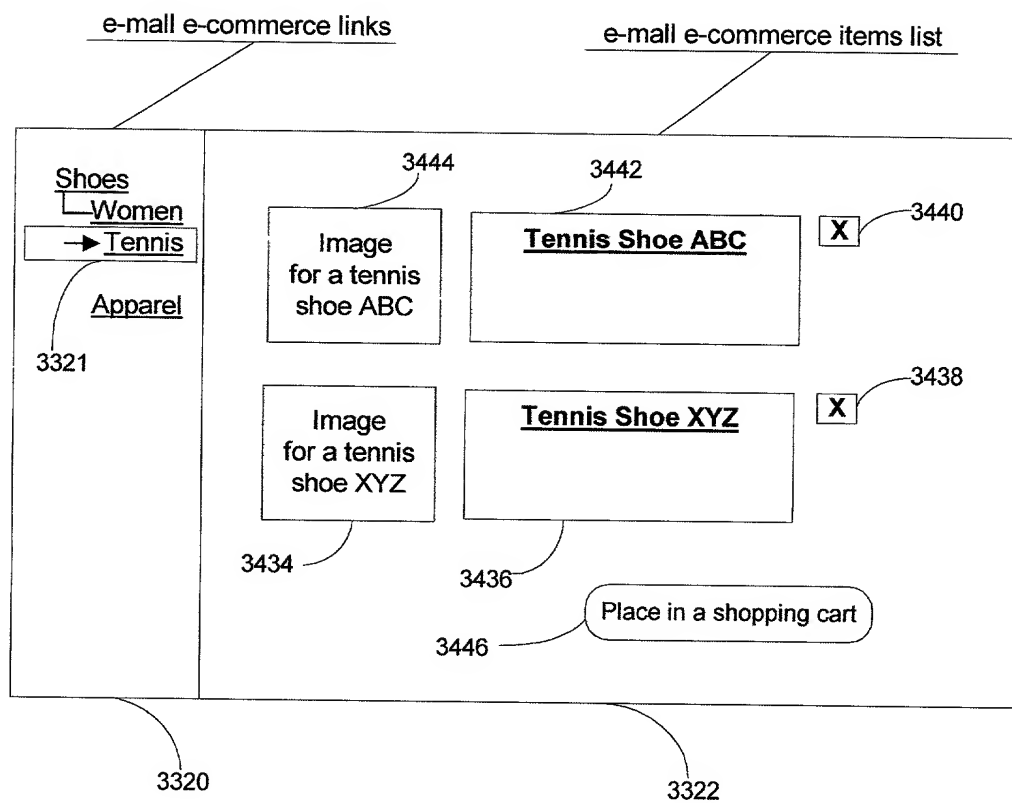
*Fig. 32*



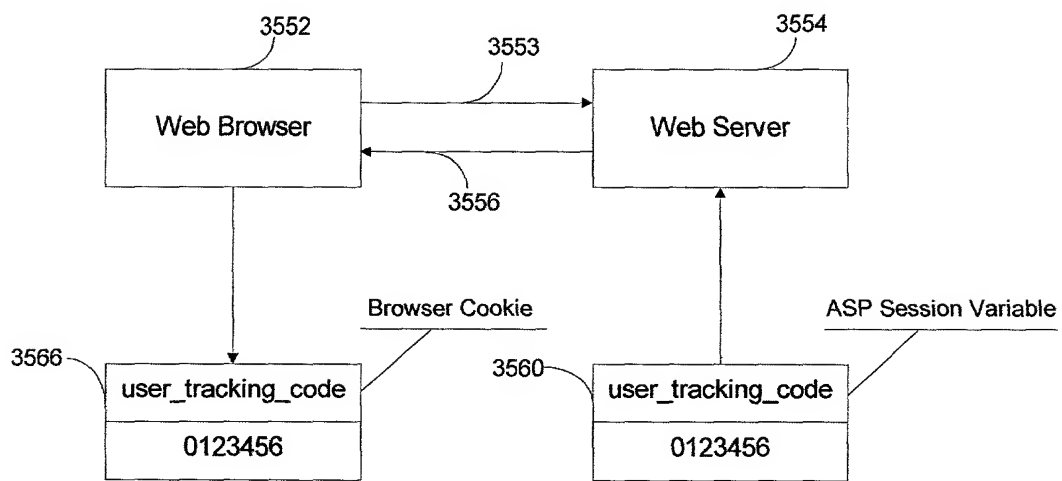
*Fig. 33*



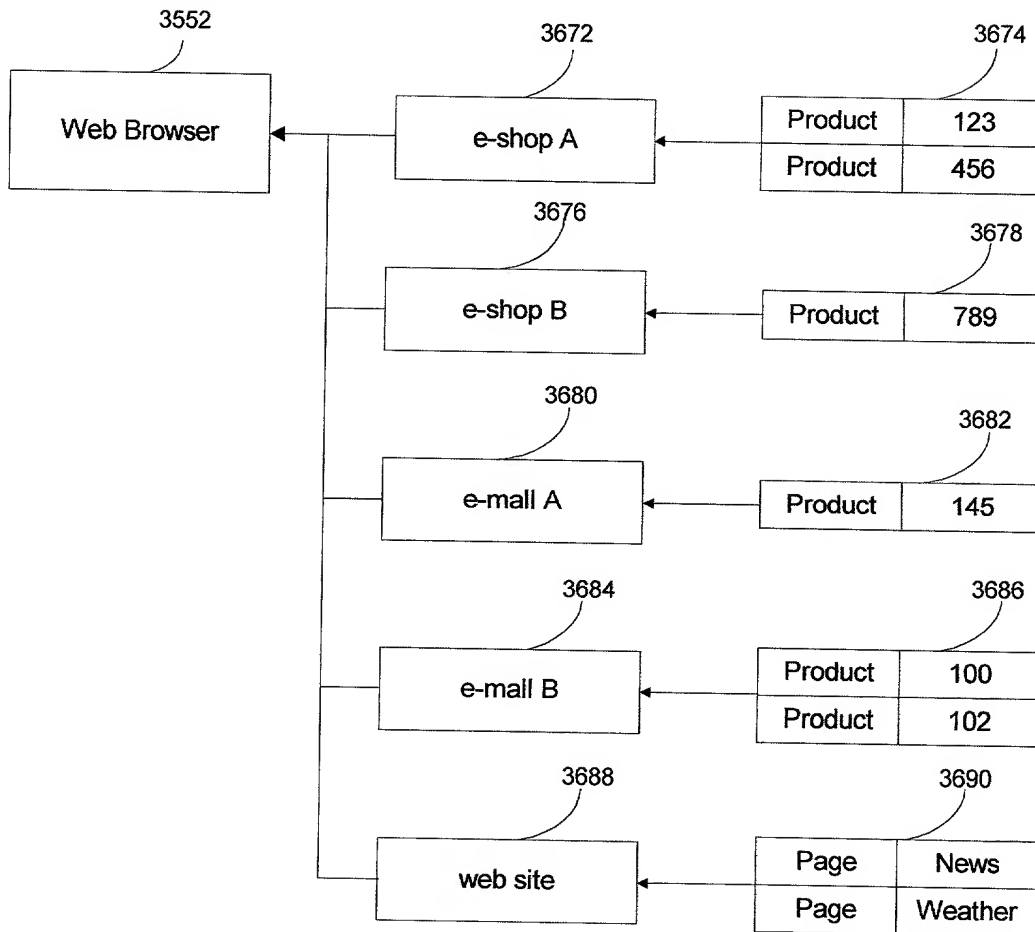
*Fig. 34*



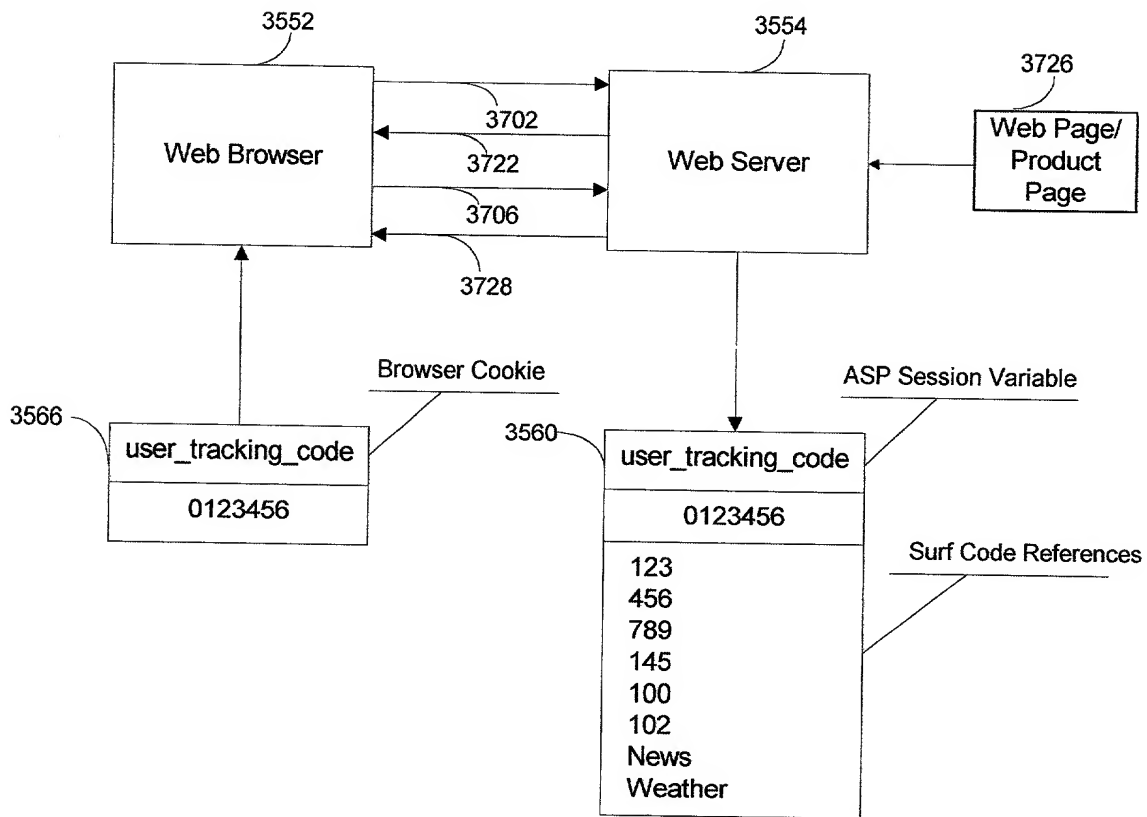
*Fig. 35*



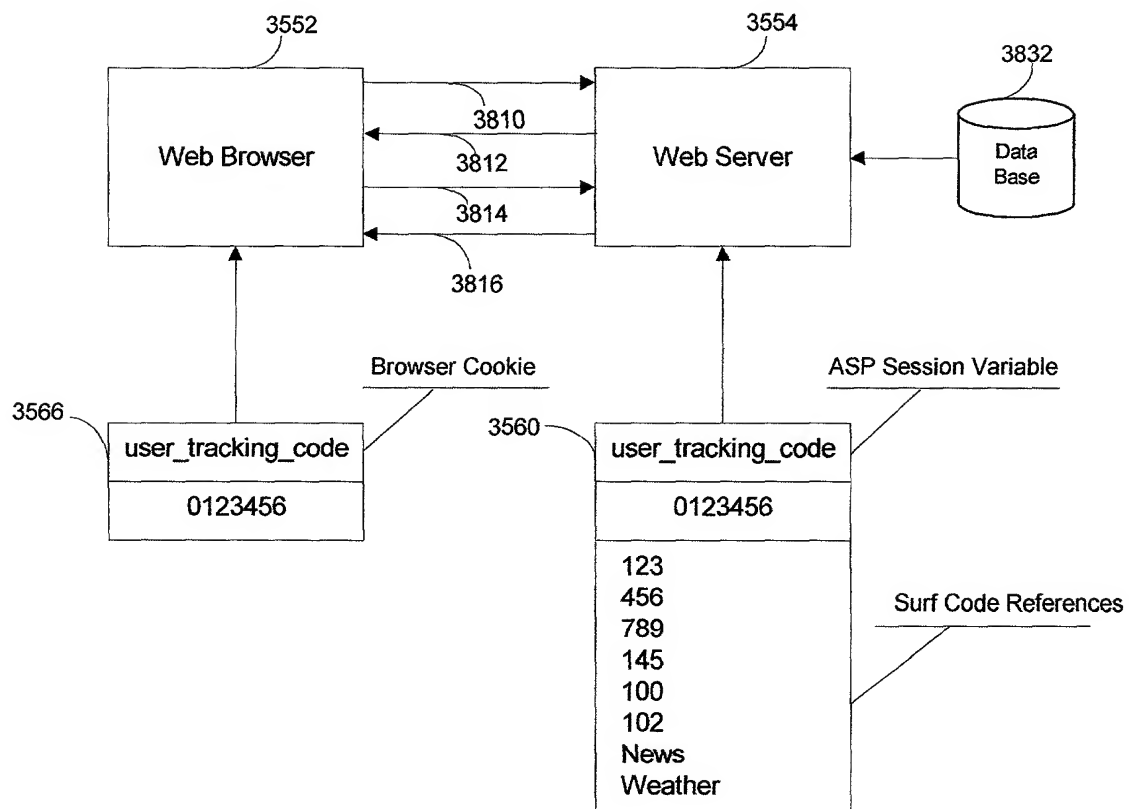
*Fig. 36*



*Fig. 37*



*Fig. 38*





*Fig. 39*

